CLAIM LISTING

Claims 1-26 (Cancelled)

Claim 27 (Currently Amended): A coated implant comprising an implant and a coating, wherein said coating comprises

an amorphous layer contacting the implant, wherein said amorphous layer comprises a deposit of crystals nucleated directly onto the implant from a solution ~~with the coating having an average bond strength to the implant of between 40 to 65 Mpa, wherein said coating~~ and comprises magnesium ions, calcium ions, and phosphate ions, and

a crystalline layer contacting the amorphous layer, wherein said crystalline layer comprises calcium and phosphate ions,

and wherein said coating has an average bond strength to the implant of between 40 to 65 Mpa, and ~~wherein said coating~~ induces formation of bone cells from progenitor cells.

Claim 28 (Previously Presented): The implant of claim 27 wherein said implant is formed from one or more of metal, organic material, polymer, or ceramic.

Claim 29 (Previously Presented): The implant of claim 27 wherein the implant is treated by a mechanical or chemical surface treatment before said coating is applied to said device.

Claim 30 (Previously Presented): The implant of claim 29 wherein the implant is treated by sand-blasting, scoring, polishing, or grounding.

Claim 31 (Previously Presented): The implant of claim 29 wherein the implant is treated by contacting with strong mineral acid or an oxidizing agent in a manner to etch the implant.

Claim 32 (Previously Presented): The coated implant of claim 27, said coating further comprising one or more ions selected from the group consisting of hydroxide, carbonate, chloride, sodium and potassium.

Claim 33 (Previously Presented): The coated implant of claim 27, said coating comprising one or more of amorphous carbonate calcium phosphate, hydroxyapatite, calcium deficient apatite, hydroxyl carbonate apatite, octacalcium phosphate, dicalcium phosphate dihydrate or calcium carbonate.

Claim 34 (Previously Presented): The coated implant of claim 27 wherein the coating has a thickness of about 0.5 to about 100 microns.

Claim 35 (Previously Presented): The coated implant of claim 27 wherein the coating has a thickness of about 0.5 to about 50 microns.

Claim 36 (Currently Amended): A The coated implant of claim 27, ~~comprising an implant, a first coating, and a second coating, wherein said first coating comprises a deposit of crystals nucleated directly onto the implant from solution with the coating having an average bond strength to the implant of between 40 to 65 Mpa wherein said first coating comprises magnesium ions, calcium ions, and phosphate ions, and~~ wherein said amorphous layer ~~coating~~ induces formation of bone cells from progenitor cells~~,~~

~~wherein the second coating comprises calcium and phosphate ions~~.

Claim 37 (Currently Amended): The coated implant of claim [[36]] 27 wherein the crystalline layer ~~second coating~~ comprising calcium and phosphate ions further comprises octacalcium phosphate.

Claim 38 (Previously Presented): The coated implant of claim 27 wherein the coating comprises octacalcium phosphate.

Claim 39 (Currently Amended): A coated implant comprising an implant and a coating, wherein said coating comprises

an amorphous layer contacting the implant, wherein said amorphous layer comprises a deposit of octacalcium phosphate crystals nucleated directly onto the implant from solution ~~with the coating having an average bond strength to the implant of between 40 to 65 Mpa~~, and

a crystalline layer contacting the amorphous layer, wherein said crystalline layer comprises calcium and phosphate ions,

and wherein said coating has an average bond strength to the implant of between 40 to 65 Mpa, and ~~wherein said coating~~ induces formation of bone cells from progenitor cells.

Claim 40 (Previously Presented): The implant of claim 39 wherein said implant is formed from one or more of metal, organic material, polymer, or ceramic.

Claim 41 (Previously Presented): The implant of claim 39 wherein the implant is treated by a mechanical or chemical surface treatment before said coating is applied to said device.

Claim 42 (Previously Presented): The implant of claim 39 wherein the implant is treated by sand-blasting, scoring, polishing, or grounding.

Claim 43 (Previously Presented): The implant of claim 39 wherein the implant is treated by contacting with strong mineral acid or an oxidizing agent in a manner to etch the implant.

Claim 44 (Previously Presented): The coated implant of claim 39 wherein the coating has a thickness of about 0.5 to about 100 microns.

Claim 45 (Previously Presented): The coated implant of claim 39 wherein the coating has a thickness of about 0.5 to about 50 microns.